2018 Current Fiscal Year Report: Astronomy and Astrophysics Advisory Committee

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1. Department or Agency
National Science Foundation

2. Fiscal Year
2018

3. Committee or Subcommittee
Astronomy and Astrophysics Advisory Committee

3b. GSA Committee No.
13883

4. Is this New During Fiscal Year?	5. Current Charter	6. Expected Renewal Date	7. Expected Term Date
No	03/15/2005	03/15/2007	

8a. Was Terminated During FiscalYear?	8b. Specific Termination Authority	8c. Actual Term Date
No		

9. Agency Recommendation for Next FiscalYear	10a. Legislation Req to Terminate?	10b. Legislation Pending?
Continue	No	Not Applicable

11. Establishment Authority Statutory (Congress Created)

12. Specific Establishment Authority	13. Effective Date	14. Commitee Type	14c. Presidential?
Sec. 23, P.L. 107-368	03/15/2003	Continuing	No

15. Description of Committee Scientific Technical Program Advisory Board

16a. Total Number of Reports No Reports for this FiscalYear

17a. Open 4 **17b. Closed** 1 **17c. Partially Closed** 0 **Other Activities** 0 **17d. Total** 5

Meetings and Dates

Purpose	Start	End
The AAAC commissioned a subcommittee to develop a concept for implementing a ground-based Cosmic Microwave Background Stage 4 experiment. The Conceptual Design Team (CDT) will take as input the community CMB–S4 Science Book and any further community information as appropriate, will consider the global landscape of CMB experiments, and provide a project strawman concept with options and alternatives. The purpose of the meeting is to discuss and accept the subcommittee report.	10/23/2017	10/23/2017
To provide advice and recommendations to the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA) and the U.S. Department of Energy (DOE) on issues within the field of astronomy and astrophysics that are of mutual interest and concern to the agencies.	01/25/2018	01/26/2018
To provide advice and recommendations to the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA) and the U.S. Department of Energy (DOE) on issues within the field of astronomy and astrophysics that are of mutual interest and concern to the agencies.	02/27/2018	02/27/2018
To provide advice and recommendations to the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA) and the U.S. Department of Energy (DOE) on issues within the field of astronomy and astrophysics that are of mutual interest and concern to the agencies.	06/27/2018	06/27/2018
To provide advice and recommendations to the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA) and the U.S. Department of Energy (DOE) on issues within the field of astronomy and astrophysics that are of mutual interest and concern to the agencies.	09/20/2018	09/21/2018

Number of Committee Meetings Listed: 5

	Current FY	Next FY
18a(1). Personnel Pmts to Non-Federal Members	$0.00	$0.00
18a(2). Personnel Pmts to Federal Members	$0.00	$0.00
18a(3). Personnel Pmts to Federal Staff	$0.00	$0.00
18a(4). Personnel Pmts to Non-Member Consultants	$0.00	$0.00
18b(1). Travel and Per Diem to Non-Federal Members	$16,639.00	$16,639.00
18b(2). Travel and Per Diem to Federal Members	$0.00	$0.00
18b(3). Travel and Per Diem to Federal Staff	$0.00	$0.00
18b(4). Travel and Per Diem to Non-member Consultants	$0.00	$0.00
18c. Other(rents,user charges, graphics, printing, mail, etc.)	$750.00	$750.00
18d. Total	$17,389.00	$17,389.00
19. Federal Staff Support Years (FTE)	0.33	0.33

20a. How does the Committee accomplish its purpose?

Advise the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), and the Department of Energy (DOE) on selected issues within the field of astronomy and astrophysics that are of mutual interest and concern to the three agencies. Astronomy and astrophysics is understood to encompass observations and theoretical investigations of astronomical objects and phenomena, including the sun and solar-system bodies. Provide assessment of and recommendations concerning:- The identification of gaps and duplications between the three agencies in areas such as research, analysis programs, missions, observatories, facilities and archives.- The development of the strategic plan for the three agencies for astronomy and astrophysics.- Areas which may benefit from coordinated formulation, solicitation of proposals for research and/or hardware development and financial support.

20b. How does the Committee balance its membership?

Members are selected to be representative of the scientific areas encompassed by astronomy and astrophysics. Every effort is made to achieve a diverse membership with representation including individuals from underrepresented groups and different geographic regions. By legislation NSF and NASA appoint 4 members each, the Department of Energy appoints 3 members, and the Office of Science & Technology Policy (OSTP) appoints 2 members.

20c. How frequent and relevant are the Committee Meetings?

At least 4 meetings per year, as per charter - some by telecon.

20d. Why can't the advice or information this committee provides be obtained elsewhere?

To provide analysis, recommendations, and viewpoints on issues of mutual interest to the three agencies. No other balanced forum exists.

20e. Why is it necessary to close and/or partially closed committee meetings?

N/A

21. Remarks

N/A

Designated Federal Officer

Richard F. Green Division Director AST

Committee Members	Start	End	Occupation	Member Designation
Bean, Rachel	07/01/2016	06/30/2019	Cornell University	Special Government Employee (SGE) Member
Hartmann, Dieter	07/01/2016	06/30/2019	Clemson University	Special Government Employee (SGE) Member
Jannuzi, Buell	07/01/2015	06/30/2018	University of Arizona	Special Government Employee (SGE) Member
Johnson, Kelsey	07/01/2016	06/30/2019	University of Virginia	Special Government Employee (SGE) Member
Kaltenegger, Lisa	07/01/2015	06/30/2018	Cornell University	Special Government Employee (SGE) Member
Keating, Brian	07/01/2016	06/30/2019	University of California, San Diego	Special Government Employee (SGE) Member
Kempton, Eliza	07/01/2017	06/30/2020	Grinnell College	Special Government Employee (SGE) Member
Larson, Shane	07/01/2016	06/30/2019	Northwestern University	Special Government Employee (SGE) Member
Mandelbaum, Rachel	07/01/2015	06/30/2018	Carnegie-Mellon University	Special Government Employee (SGE) Member
O'Meara, John	07/01/2017	06/30/2020	St. Michael's College	Special Government Employee (SGE) Member
Rockosi, Constance	07/01/2017	06/30/2020	University of California, Santa Cruz	Special Government Employee (SGE) Member
Smith, William	07/01/2015	06/30/2018	ScienceWorks International	Special Government Employee (SGE) Member
White, Martin	07/01/2015	06/30/2018	University of California, Berkeley	Special Government Employee (SGE) Member

Number of Committee Members Listed: 13

Narrative Description

Astronomy is in the midst of a period of extraordinary scientific discovery. The path ahead leads to the exploration of some of the most exciting aspects of our universe: the nature of dark matter and dark energy in the universe, the formation of galaxies at early times, the nature of massive black holes, the formation of stars and planetary systems, and the detection of planets like Earth around other stars. NASA, NSF, and increasingly DOE, together provide the opportunities for astronomical research that have allowed this nation to demonstrate its scientific and technological leadership worldwide. The framework that led to this leadership was established by the decade-long plan of the National Academy of Sciences (NAS) Astronomy and Astrophysics Survey Committee 2001 Decadal Survey, “Astronomy and Astrophysics in the New Millennium” (hereafter the “Decadal Survey”). The recommendations given in the AAAC report are intended to further the implementation of the Decadal Survey, and more recent NAS studies, such as “Connecting Quarks with the Cosmos” (CQC). The most recent decade-long frameworks have been set by the two NAS decadal surveys pertaining to the decade after 2010: New Worlds, New Horizons in Astronomy and Astrophysics (released in 2010) and Vision and

Voyages for Planetary Science in the Decade 2013-2022 (released in 2012). These NAS studies herald a decade of remarkable scientific opportunities. The diverse approach to astronomical research offered by NASA, NSF and DOE is key to the scientific success and public visibility achieved in astrophysics over the last several decades. It remains a central aspect of the future success of astronomy. Joint programs between NASA, NSF and DOE, implemented within a healthy scientific research budget, are also of great benefit to the nation's astronomy and astrophysics research enterprise. By drawing on the different strengths of the agencies' approaches to achieving the science goals of the astronomical community, the nation will realize greatly enhanced value from its investment in astronomy.The NAS Committee on the Organization and Management of Research in Astronomy and Astrophysics (COMRAA) recommended in 2002 the establishment of an advisory committee to deal with the increasingly important interfaces between the agencies involved in supporting astronomy and astrophysics. Support for this by the Executive Branch and Congress led to the establishment of the Astronomy and Astrophysics Advisory Committee (AAAC) to: 1) assess, and make recommendations regarding, the coordination of astronomy and astrophysics programs of NSF, NASA, and DOE; 2) assess, and make recommendations regarding, the status of the activities of NSF and NASA as they relate to the recommendations contained in the National Research Council's 2001 Decadal report, and the recommendations contained in subsequent National Research Council reports of a similar nature; and 3) issue an annual report to Congress and the agencies no later than March 15.

What are the most significant program outcomes associated with this committee?

	Checked if Applies
Improvements to health or safety	☐
Trust in government	☐
Major policy changes	☐
Advance in scientific research	☑
Effective grant making	☑
Improved service delivery	☐
Increased customer satisfaction	☐
Implementation of laws or regulatory requirements	☐
Other	☑

Outcome Comments

Interagency cooperation and coordination

What are the cost savings associated with this committee?

Checked if Applies

None	☐
Unable to Determine	☑
Under $100,000	☐
$100,000 - $500,000	☐
$500,001 - $1,000,000	☐
$1,000,001 - $5,000,000	☐
$5,000,001 - $10,000,000	☐
Over $10,000,000	☐
Cost Savings Other	☐

Cost Savings Comments
NA

What is the approximate Number of recommendations produced by this committee for the life of the committee?
23

Number of Recommendations Comments
This is the count of recommendations for the current Fiscal Year. 136 Recommendations received in total for the life of the committee. The recommendations and findings are provided in the annual report of the AAAC for the Fiscal Year. The recommendations are advice to the three agencies, NSF, NASA, and DOE.

What is the approximate Percentage of these recommendations that have been or will be Fully implemented by the agency?
70%

% of Recommendations Fully Implemented Comments
These recommendations are advisory in nature and it is up to the individual agencies to implement them. Percentages are given for the current Fiscal Year. The only recommendation not fully implemented was a recommendation to Congress regarding the importance of astronomy funding; response to such a recommendation is not under the control of the agencies. It should be noted that some of the recommendations are multi-year in nature, so full implementation of the recommendations does not necessarily imply that all activities are completed within a single year.

What is the approximate Percentage of these recommendations that have been or will be Partially implemented by the agency?
0%

% of Recommendations Partially Implemented Comments

These recommendations are advisory in nature and it is up to the individual agencies to implement them. As stated above, the recommendation not implemented was directed to Congress and is not under agency control.

Does the agency provide the committee with feedback regarding actions taken to implement recommendations or advice offered?

Yes ☑ No ☐ Not Applicable ☐

Agency Feedback Comments

Each agency provides a report on activities at each AAAC meeting.

What other actions has the agency taken as a result of the committee's advice or recommendation?

	Checked if Applies
Reorganized Priorities	☑
Reallocated resources	☑
Issued new regulation	☐
Proposed legislation	☐
Approved grants or other payments	☐
Other	☐

Action Comments

NA

Is the Committee engaged in the review of applications for grants?

No

Grant Review Comments

NA

How is access provided to the information for the Committee's documentation?

	Checked if Applies
Contact DFO	☐
Online Agency Web Site	☑
Online Committee Web Site	☐
Online GSA FACA Web Site	☐
Publications	☐

Other

Access Comments

N/A